What is claimed is:

1. A scanning optical system for emitting a plurality of beams scanning in a main scanning direction, comprising:

a light source that emits the plurality of beams;

a deflector that simultaneously deflects the plurality of beams incident thereon to scan in the main scanning direction, incident angles of the plurality of beams with respect to said deflector being different from each other in an auxiliary scanning direction which is perpendicular to the main scanning direction; and

an imaging optical system that converges the plurality of beams deflected by said deflector to form a plurality of beam spots scanning on respective scan target surfaces in the main scanning direction,

wherein said imaging optical system has:

a first lens group though which all of the beams deflected by said deflector pass; and

a plurality of second lens groups respectively provided for the plurality of beams, each of the plurality of beams emerged from said first lens passing through corresponding one of said plurality of second lens groups,

wherein each of said plurality of second lens groups has a lens surface whose optical surface reference axis is tilted with respect to an optical surface reference axis of

said first lens group so that a beam reflected by the lens surface is not incident on said deflector,

wherein at least one of lens surfaces of each of said plurality of second lens groups except the lens surface tilted with respect to the optical surface reference axis of said first lens group is formed to be an aspherical surface defined by a two-dimensional polynomial expression.

2. The scanning optical system according to claim 1,

wherein optical power of the at least one of lens surfaces formed to be the aspherical surface defined by the two-dimensional polynomial expression is greater than that of the lens surface tilted with respect to the optical surface reference axis of said first lens group in the auxiliary scanning direction.

3. The scanning optical system according to claim 1,

wherein each of said second lens groups has a single lens, one lens surface of the single lens being the lens surface tilted with respect to the optical surface reference axis of said first lens group, the other lens surface of the single lens being the aspherical surface defined by the two-dimensional polynomial expression.

4. The scanning optical system according to claim 3,

wherein optical power of the one lens surface of the single lens and optical power of the other lens surface of the single lens are substantially equal to each other in the auxiliary scanning direction.

5. The scanning optical system according to claim 3, wherein the single lens is a compensation lens compensating for curvature of field.

6. The scanning optical system according to claim 1, wherein the at least one of lens surfaces formed to be the aspherical surface defined by the two-dimensional polynomial expression compensates for a bow of a scan line caused by tilting the optical surface reference axis of the lens surface with respect to the optical surface reference axis of said first lens group.

7. The scanning optical system according to claim 1, wherein said first lens group has a scanning lens, and wherein said second lens groups has compensation lenses respectively provided for the plurality of beams, each compensation lens compensating for curvature of field.

8. The scanning optical system according to claim 1, wherein the optical surface reference axis of the lens

surface tilted with respect to an optical surface reference axis of said first lens group coincides with the optical surface reference axis of the at least one of lens surfaces formed to be the aspherical surface defined by a two-dimensional polynomial expression.